K041509

AUG 2 6 2004

SECTION 17: SUMMARY OF SAFETY AND EFFECTIVENESS

This 510(k) summary of safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and CFR 807.92.

17.1 SUBMITTER INFORMATION

a. Company Name:	FRIADENT GmbH.
b. Company Address:	Steinzeugstrasse 50 Mannheim D-68229 Germany
c. Company Phone: Company Facsimile:	(011) 49 621 43 02 1121 (011) 49 621 43 02 2121
d. Contact Person:	Heike Dietzler Regulatory Affairs Manager
e. Date Summary Prepared:	May 24, 2004

17.2. DEVICE IDENTIFICATION

a. Trade/Proprietary Name:	ANKYLOS® Dental Implant System
b. Classification Name:	Endosseous Dental Implants 21 CFR 872.3640

17.3 IDENTIFICATION OF PREDICATE DEVICES

Company	Device	510(k) No.	Date Cleared
FRIADENT GmbH	ANKYLOS® Dental Implant System	K012087	08/22/2003
FRIADENT GmbH	XiVE® Dental Implant System	K032158	08/14/2003
FRIADENT GmbH	XiVE® Dental Implant System	K021318	07/02/2002

17.4 DEVICE DESCRIPTION

The ANKYLOS® Dental Implant System consists of threaded dental implants in 3.5 – 7.0 mm diameters with 8 – 17 mm lengths. The implants are coated with the FRIADENT Surface. The ANKYLOS® Dental Implant System is comprised of dental implants, surgical instruments and prosthetic components. The system is designed for conventional two-stage and single stage procedures for single and multiple unit prosthetics. In the edentulous mandible, the ANKYLOS® dental implants are indicated for immediate loading procedures using the standard protocol.

17.5 SUBSTANTIAL EQUIVALENCE

The ANKYLOS® dental implants with the FRIADENT Surface are substantially equivalent to the current ANKYLOS® Dental Implant System in terms of design, materials, mechanical strength, prosthetic and laboratory options and intended use. The purpose of this submission is to apply the FRIADENT Surface to the endosseous implants.

17.6 INTENDED USE

An endosseous dental implant is indicated for surgical placement in the upper and lower jaw arches, to provide a root form means for single or multiple unit prosthetic appliance attachment to restore a patient's chewing function. Implants can be placed with a conventional 2 stage surgical process with an option for transmucosal healing or they can be placed in a single stage surgical process for immediate loading. Immediate loading is restricted to the anterior mandible, based on 4 interforminal placed implants, and not indicated for single, unsplinted implants. Patients must be subject for dental treatment with endosseous implants.

17.7 TECHNOLOGICAL CHARACTERISTICS

The ANKYLOS® dental implant is available in 3.5, 4.5, 5.5 and 7.0 mm screw-type implants with the FRIADENT Surface. The lengths of the implants range from 8 – 17 mm. The ANKYLOS® dental implants are constructed of CP-2 titanium. A variety of prosthetic options are available for the ANKYLOS® system including, Standard System, Permador System, Balance System, and SynCone® System.

The ANKYLOS® dental implants with the FRIADENT Surface is equivalent to the current ANKYLOS® Dental Implant System in terms of design, materials, prosthetic options, instructions for use and intended use. The only difference is the change in the surface morphology of the dental implant to the FRIADENT Surface.

17.8 CLASS III CERTIFICATION AND SUMMARY

This notification contains a Class III certification and summary of adverse safety and effectiveness information pursuant to 513(f) of the Federal Food, Drug, and Cosmetic Act.

17.9 CONCLUSIONS

This notification contains all information required by 21 CFR 807.87. A completed copy of the Premarket Notification 510(k) Reviewer's Checklist is provided in this submission. Performance evaluations of the ANKYLOS® dental implant system show that the device performs as intended. Comparison of the ANKYLOS® dental implant system to the predicate devices shows that the device is substantially equivalent. The complete surface characterization of the FRIADENT Surface has been detailed in a Device Master File.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

AUG 2 6 2004

FRIADENT GmbH
C/O Ms. Carol Patterson
Patterson Consulting Group, Incorporated
21911 Erie Lane
Lake Forest, California 92630

Re: K041509
Trade/Device Name: ANKYLOS® Dental Implant System
Regulation Number: 872.3640
Regulation Name: Endosseous Implant
Regulatory Class: II
Product Code: DZE
Dated: August 13, 2004
Received: August 17, 2004

Dear Ms. Patterson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4613. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/dsma/dsmamain.html

Sincerely yours,

Chiu Lin, Ph.D.
Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

INDICATION FOR USE

510(k) Number:

Device Name: ANKYLOS® Dental Implant System

Indications for Use:

An endosseous dental implant is indicated for surgical placement in the upper and lower jaw arches, to provide a root form means for single or multiple unit prosthetic appliance attachment to restore a patient's chewing function. Implants can be placed with a conventional 2 stage surgical process with an option for transmucosal healing or they can be placed in a single stage surgical process for immediate loading. Immediate loading is restricted to the anterior mandible, based on 4 interforaminal placed implants, and not indicated for single, unsplinted implants. Patients must be subject for dental treatment with endosseous implants.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓ OR Over-The-Counter Use _____

(Per 21 CFR 801.109)

Susan Runner

(Division Sign-Off)
Division of Anesthesiology, General Hospital,
Infection Control, Dental Devices

510(k) Number: K041509